FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) OFFICE OF AIR MANAGEMENT and Anderson Office of Air Management

E & B Paving, Inc.
SR 67 & I-69
Anderson, Indiana 46012

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F095-7780-03257	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) and Anderson Office of Air Management. The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary hot drum-mix asphalt plant

Authorized individual:	Steve Henderson
Source Address:	SR 67 & I-69, Anderson, Indiana, 46012
Mailing Address:	286 West 300 North, Anderson, Indiana 46012
Phone Number:	765-643-5358
SIC Code:	234110
Source Location Status:	Madison
County Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Major Source, under PSD or Emission Offset Rules;

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

(a) One (1) hot asphalt drum mix dryer, capable of processing a maximum of 350 tons per hour of raw material, equipped with one (1) 150 million British thermal units (MMBtu) per hour natural gas fired burner using #2 distillate fuel oil gas as backup fuels, equipped with one (1) baghouse for particulate matter control, exhausting through one (1) stack, identified as stack SV-1;

(b) Fugitive emissions from unpaved roads; and

(c) One (1) cold mix storage pile, total storage capacity 3000 tons.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) One (1) 2.353 million British Thermal Units (MMBtu) per hour hot oil heater firing natural gas as the primary fuel and # 2 distillate fuel oil as the backup fuel, and exhausting to stack SV-2;

(b) Three (3) asphalt storage silos;

(c) Three (3) storage piles, including:

(1) Two (2) reclaimed asphalt pavement (RAP) piles, total capacity 20,000 tons;

(2) One (1) recycled shingles pile, total capacity 3,000 tons;

(d) Nine (9) feed bins, including:

(1) Eight (8) cold feed bins for coarse to fine aggregate;

(2) One (1) feed bin for recycled asphalt pavement and recycled shingles;

(e) Five (5) conveyors, including:

(1) Three (3) transporting coarse to fine aggregate to the drum mixer;

(2) One (1) transporting recycled asphalt pavement and recycled shingles to the drum mixer;

(3) One (1) drag slat conveyor transporting hot mixed asphalt to the asphalt storage silos;

(f) Three (3) storage tanks exhausting at stacks SV-3, SV-4, and SV-5, including:

(1) Two (2) liquid asphalt cement storage tanks, each with a capacity of 30,000 gallons;

(2) One (1) tack storage tank with a capacity of 10,000 gallons.;

(g) One (1) truck loading operation;

(h) One (1) materials testing laboratory;

(i) One (1) screening operation;

(j) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons; and

(k) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) for a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permit Conditions

(a) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits.

(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, including any term or condition from a previously issued construction or operation permit, IDEM, OAM, and Anderson Office of Air Management shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued.

SECTION B GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

B.2 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2, and 326 IAC 2-7) shall prevail.

B.3 Permit Term [326 IAC 2-8-4(2)]

This permit is issued for a fixed term of five (5) years from the effective date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3.

B.4 Enforceability [326 IAC 2-8-6]

(a) Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM and Anderson Office of Air Management, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

(b) Unless otherwise stated, all terms and conditions in this permit that are local requirements, including any provisions designed to limit the source's potential to emit, are enforceable by Anderson Office of Air Management.

B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.6 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 East 8th Street
Anderson, IN 46011

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall furnish to IDEM, OAM, and Anderson Office of Air Management within a reasonable time, any information that IDEM, OAM, and Anderson Office of Air Management may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) Upon request, the Permittee shall also furnish to IDEM, OAM, and Anderson Office of Air Management copies of records required to be kept by this permit. The Permittee may include a claim of confidentiality in accordance with 326 IAC 17. If requested by IDEM, OAM, or the U.S. EPA, to furnish copies of requested records directly to U. S. EPA, then the Permittee must furnish record directly to the U. S. EPA. The Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAM and Anderson Office of Air Management may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

(a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit, except those specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act and is grounds for:

(1) Enforcement action;

(2) Permit termination, revocation and reissuance, or modification; and

(3) Denial of a permit renewal application.

(b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, on the attached Certification Form, with each submittal.

(c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The certification shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 East 8th Street
Anderson, Indiana 46011

(b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, and Anderson Office of Air Management on or before the date it is due.

(c) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and

(5) Such other facts as specified in Sections D of this permit, IDEM, OAM, and Anderson Office of Air Management may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond its control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 East 8th Street
Anderson, Indiana 46011

The PMP and the PMP extension notification do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) A copy of the PMPs shall be submitted to IDEM, OAM, and Anderson Office of Air Management upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAM, and Anderson Office of Air Management. IDEM, OAM, and Anderson Office of Air Management may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.14 Emergency Provisions [326 IAC 2-8-12]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAM and Anderson Office of Air Management, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Management, Compliance Section) or,
Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967

and

Telephone No.: 317-646-9835
Facsimile No.: 317-646-9657

Failure to notify IDEM, OAM and Anderson Office of Air Management, by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]

(5) For each emergency lasting one (1) hour or more, the Permittee submitted notice either in writing or facsimile, of the emergency to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 East 8th Street
Anderson, Indiana 46011

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions) for sources subject to this rule after the effective date of this rule. This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) IDEM, OAM and Anderson Office of Air Management, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.

(f) Failure to notify IDEM, OAM and Anderson Office of Air Management, by telephone or facsimile of an emergency lasting more than one (1) hour in compliance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.

(g) Operations may continue during an emergency only if the following conditions are met:

(1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

(2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:

(A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and

(B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 East 8th Street
Anderson, Indiana 46011

within ten (10) calendar days from the date of the discovery of the deviation, execpt for the failure to perform the monitoring or record the information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:

(1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or

(2) An emergency as defined in 326 IAC 2-7-1(12); or

(3) Failure to implement elements of the Preventive Maintenance Plan unless such failure has caused or contributed to a deviation.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

(c) Written notification shall be submitted on the attached Emergency/Deviation Occurrence Reporting Form or its substantial equivalent. The notification does not need to be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(d) Proper notice submittal under 326 IAC 2-7-16 satisfies the requirement of this subsection.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAM or Anderson Office of Air Management determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]

(c) Proceedings by IDEM, OAM or Anderson Office of Air Management, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAM and Anderson Office of Air Management, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAM and Anderson Office of Air Management, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 Permit Renewal [326 IAC 2-8-3(h)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAM and Anderson Office of Air Management and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 East 8th Street
Anderson, Indiana 46011

(b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]

(1) A timely renewal application is one that is:

(A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, and Anderson Office of Air Management on or before the date it is due.

(2) If IDEM, OAM and Anderson Office of Air Management upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

(c) Right to Operate After Application for Renewal [326 IAC 2-8-9]
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAM and Anderson Office of Air Management takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAM and Anderson Office of Air Management, any additional information identified as needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 East 8th Street
Anderson, Indiana 46011

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1) only if a certification is required by the terms of the applicable rule.

(c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Operational Flexibility [326 IAC 2-8-15]

(a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any approval required by 326 IAC 2-8-11.1 has been obtained;

(3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 East 8th Street
Anderson, Indiana 46011

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAM and Anderson Office of Air Management, in the notices specified in 326 IAC 2-8-15(b), (c)(1), and (d).

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional conditions:

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1.

(c) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).

(d) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAM or U.S. EPA is required.

B.20 Permit Revision Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the applicable provisions of 326 IAC 2-8-11.1.

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee’s right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAM, and Anderson Office of Air Management U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements. [326 IAC 2-8-5(a)(4)]

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

(a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 East 8th Street
Anderson, Indiana 46011

The application which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-11(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-8-4(6)] [326 IAC 2-8-16]

(a) The Permittee shall pay annual fees to IDEM, OAM, and Anderson Office of Air Management, within thirty (30) calendar days of receipt of a billing. If the Permittee does not receive a bill from IDEM, OAM the applicable fee is due April 1 of each year.

(b) Failure to pay may result in administrative enforcement action, or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAM, Technical Support and Modeling Section), to determine the appropriate permit fee.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

(1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also satisfy the requirements of 326 IAC 2-3 (Emission Offset);

(2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and

(3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 2-3 (Emission Offset) , emissions of particulate matter (PM) from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3(a)(2)(A) and (B) are not federally enforceable.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2. 326 IAC 9-1-2 is not federally enforceable.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted with this FESOP application. The plan does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1). The plan consists of:

(a) Fugitive particulate matter emissions from interior roads and parking lots shall be controlled by paving with asphalt, or treating with emulsified asphalt, calcium chloride or water on an as needed basis.

(b) Fugitive particulate matter emissions from conveying of aggregate shall be controlled by treating with water on an as needed basis.

(c) Fugitive particulate matter emissions from the transferring of aggregates shall be controlled by locating stockpiles as close as possible to feed bins, limiting transfer points to three foot drops or less or applying water on an as needed basis.

(d) Fugitive particulate matter emissions from the transporting of aggregates shall be controlled by tarping the aggregate hauling vehicles, insuring tailgates are tight and do not leak, and maintaining a 10 MPH speed limit on site.

(e) Fugitive particulate matter emissions from the loading and unloading of aggregates shall be controlled by limiting the free fall distance, limiting the rate of discharge of the aggregate, and applying water on an as needed basis.

C.7 Operation of Equipment [326 IAC 2-8-5(a)(4)]

Except as otherwise provided in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.8 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.9 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61.140]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 East 8th Street
Anderson, Indiana 46011

The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

Testing Requirements [326 IAC 2-8-4(3)]

C.10 Performance Testing [326 IAC 3-6]

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 East 8th Street
Anderson, Indiana 46011

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall notify IDEM, OAM of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAM and Anderson Office of Air Management within forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAM, and Anderson Office of Air Management, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.11 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.12 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

All monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 East 8th Street
Anderson, Indiana 46011

in writing, prior to the end of the initial ninety (90) day compliance schedule with full justification of the reasons for inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

C.13 Maintenance of Emission Monitoring Equipment [326 IAC 2-8-4(3)(A)(iii)]

(a) In the event that a breakdown of the emission monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less than one (1) hour until such time as the continuous monitor is back in operation.

(b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

C.14 Monitoring Methods [326 IAC 3]

Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

C.15 Pressure Gauge Specifications

Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.16 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

(a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.

(b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 East 8th Street
Anderson, Indiana 46011

within ninety (90) days from the date of issuance of this permit.

(c) If the ERP is disapproved by IDEM, OAM and Anderson Office of Air Management, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.

(d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.

(e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.

(f) Upon direct notification by IDEM, OAM and Anderson Office of Air Management, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.17 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

(a) A compliance schedule for meeting the requirements of 40 CFR 68 by the date provided in 40 CFR 68.10(a); or

(b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and

(c) A verification to IDEM, OAM, and Anderson Office of Air Management that a RMP or a revised plan was prepared and submitted as required by 40 CFR 68.

All documents submitted pursuant to this condition shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

C.18 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5]

(a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. The compliance monitoring plan can be either an entirely new document, consist in whole information contained in other documents, or consist of a combination of new information and information contained in other documents. If the compliance monitoring plan incorporates by reference information contained in other documents, the Permittee shall identify as part of the compliance monitoring plan the documents in which the information is found. The elements of the compliance monitoring plan are:

(1) This condition;

(2) The Compliance Determination Requirements in Section D of this permit;

(3) The Compliance Monitoring Requirements in Section D of this permit;

(4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and

(5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAM and Anderson Office of Air Management upon request and shall be subject to review and approval by IDEM, OAM, and Anderson Office of Air Management. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:

(A) Reasonable response steps that may be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and

(B) A time schedule for taking reasonable response steps including a schedule for devising additional response steps for situations that may not have been predicted.

(b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to take reasonable response steps shall constitute a violation of the permit.

(c) Upon investigation of a compliance monitoring excursion, the Permittee is excused from taking further response steps for any of the following reasons:

(1) A false reading occurs due to the malfunction of the monitoring equipment. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied; or

(3) An automatic measurement was taken when the process was not operating; or

(4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.

(d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

(e) All monitoring required in Section D shall be performed at all times the equipment is operating. If monitoring is required by Section D and the equipment is not operating, then the Permittee may record the fact that the equipment is not operating or perform the required monitoring.

(f) If for reasons beyond its control, the Permittee fails to perform the monitoring and record keeping as required by Section D, then the reasons for this must be recorded.

(1) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent of the operating time in any quarter.

(2) Temporary, unscheduled unavailability of qualified staff shall be considered a valid reason for failure to perform the monitoring or record keeping requirements in Section D.

C.19 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the corrective actions are being implemented.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline.

(c) IDEM, OAM reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.20 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

(a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner or Anderson Office of Air Management makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or Anderson Office of Air Management within a reasonable time.

(b) Records of required monitoring information shall include, where applicable:

(1) The date, place, and time of sampling or measurements;

(2) The dates analyses were performed;

(3) The company or entity performing the analyses;

(4) The analytic techniques or methods used;

(5) The results of such analyses; and

(6) The operating conditions existing at the time of sampling or measurement.

(c) Support information shall include, where applicable:

(1) Copies of all reports required by this permit;

(2) All original strip chart recordings for continuous monitoring instrumentation;

(3) All calibration and maintenance records;

(4) Records of preventive maintenance.

(d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.21 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

(a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Quarterly. Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported. The Compliance Monitoring Report shall include the certification by the “authorized individual” as defined by 326 IAC2-1.1-1(1).

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Anderson Office of Air Management
P.O. Box 2100
120 East 8th Street
Anderson, Indiana 46011

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, and Anderson Office of Air Management on or before the date it is due.

(d) Unless otherwise specified in this permit, any quarterly report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) All instances of deviations as described in Section B- Deviations from Permit Requirements Conditions must be clearly identified in such reports. The Emergency/Deviation Occurrence Report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.

(g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

Stratospheric Ozone Protection

C.22 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

(a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156

(b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

(c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:
(a) One (1) hot asphalt drum mix dryer, capable of processing a maximum of 350 tons per hour of raw material, equipped with one (1) 150 million British thermal units (MMBtu) per hour natural gas fired burner using #2 distillate fuel oil gas as backup fuels, equipped with one (1) baghouse for particulate matter control, exhausting through one (1) stack, identified as stack SV-1;
(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the PM from the hot-mix drum aggregate dryer shall not exceed the 64.76 pounds per hour emission rate, based on the maximum raw material process rate of 350 tons per hour (0.185 lb/ton), established as E in the following formula:

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

D.1.2 Particulate Matter Less Than 10 Microns (PM-10) [326 IAC 2-8-4]

Pursuant to 326 IAC 2-8-4, emissions of particulate matter less than 10 microns from the aggregate mixing and drying operation shall not exceed 20.66 pounds per hour, including both filterable and condensible fractions. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

D.1.3 Sulfur Dioxide (SO_2) [326 IAC 7-1.1]

Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the 150.0 million Btu per hour burner for the aggregate dryer shall be limited to:

(a) 0.5 pounds per million Btu heat input or a sulfur content of less than or equal to 0.5% when using distillate oil.

D.1.4 Fuel Usage [326 IAC 2-8-4]

Pursuant to 326 IAC 2-8-4(1), the following limits shall apply:

(a) The input of natural gas and natural gas equivalents to the 150.0 MMBtu per hour burner for the aggregate dryer shall be limited to 707.77 million cubic feet (MMcf) per twelve (12) consecutive month period, rolled on a monthly basis, so that NOx emissions are limited below 100 tons per year.

(b) The input of No. 2 fuel oil, with a maximum sulfur content of 0.5 weight percent, and No. 2 fuel oil equivalents to the 150.0 MMBtu per hour burner for the aggregate dryer shall be limited to 2,414,607 U.S. gallons per twelve (12) consecutive month period, rolled on a monthly basis, so that SO_2 emissions are limited below 100 tons per year.

(c) For purposes of determining compliance, the following shall apply:

(1) every 1,000 gallons of No. 2 distillate fuel oil burned shall be equivalent to 0.08572 million cubic feet of natural gas based on NO_x emissions, such that the total million cubic feet of natural gas and natural gas equivalent input does not exceed the limit specified;

(2) every million cubic feet of natural gas burned shall be equivalent to 7.6 gallons of No. 2 distillate fuel oil based on SO_2 emissions and a maximum sulfur content of 0.5 percent such that the total gallons of No. 2 distillate fuel oil and No. 2 distillate fuel oil equivalent input does not exceed the limit specified;

Therefore, the requirements of 326 IAC 2-7 will not apply.

D.1.5 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

Compliance Determination Requirements

D.1.6 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

Within 36 months after issuance of this permit, the Permittee shall perform PM, and PM-10 testing utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for PM, and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM-10, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

D.1.7 Sulfur Dioxide Emissions and Sulfur Content

Compliance shall be determined utilizing one of the following options.

(a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed 0.5 pounds per million Btu heat input by:

(1) Providing vendor analysis of fuel delivered, if accompanied by a certification;

(2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.

(A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and

(B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling; or

(b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the one hundred fifty (150) MMBtu per hour heater, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to either of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.8 Particulate Matter (PM)

The baghouse for PM control shall be in operation at all times when the hot-mix drum aggregate dryer is in operation.

D.1.9 Visible Emissions Notations

(a) Daily visible emission notations of the aggregate dryer stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

D.1.10 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the aggregate drying process, at least once weekly when the aggregate drying process is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 and 6.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAM, and Anderson Office of Air Management and shall be calibrated at least once every six (6) months.

D.1.11 Baghouse Inspections

An inspection shall be performed each calender quarter of all bags controlling the aggregate drying process when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

D.1.12 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.13 Record Keeping Requirements

(a) To document compliance with Conditions D.1.3 and D.1.4, the Permittee shall maintain records in accordance with (1) through (6) below.

(1) Calendar dates covered in the compliance determination period;

(2) Actual fuel usage since last compliance determination period and equivalent sulfur dioxide emissions and NOx emissions;

(3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period, the natural gas fired boiler certification does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1); and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

(4) Fuel supplier certifications.

(5) The name of the fuel supplier; and

(6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

(b) To document compliance with Condition D.1.9, the Permittee shall maintain records of visible emission notations of the aggregate dryer baghouse stack exhaust once per shift.

(c) To document compliance with Condition D.1.10, the Permittee shall maintain the following:

(1) Weekly records of the following operational parameters during normal operation when venting to the atmosphere:

(A) Inlet and outlet differential static pressure; and

(B) Cleaning cycle: frequency and differential pressure.

(2) Documentation of all response steps implemented, per event .

(3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.

(4) Quality Assurance/Quality Control (QA/QC) procedures.

(5) Operator standard operating procedures (SOP).

(6) Manufacturer's specifications or its equivalent.

(7) Equipment "troubleshooting" contingency plan.

(8) Documentation of the dates vents are redirected.

(d) To document compliance with Condition D.1.11, the Permittee shall maintain records of the results of the inspections required under Condition D.1.11 and the dates the vents are redirected.

(e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.14 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.4 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does not require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:
(c) One (1) cold mix storage pile, total storage capacity 3000 tons.
(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 Volatile Organic Compounds (VOCs) [326 IAC 8-5-2]

Pursuant to 326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving), the use of cutback asphalt or asphalt emulsion shall not contain more than seven percent (7%) oil distillate by volume of emulsion for any paving application except the following purposes:

(1) penetrating prime coating
(2) stockpile storage
(3) application during the months of November, December, January, February and March.

D.2.2 Cold-Mix (Stockpile Mix) VOC Usage [326 IAC 2-8-4]

(a) The usage of diluent in the production of cold mix (stockpile mix) asphalt shall be limited to 90.89 tons per twelve (12) consecutive month period, rolled on a monthly basis. The total for each month shall not exceed the difference between the annual usage limit minus the sum of actual usage from the previous eleven (11) months. This is equivalent to a VOC emission limit of 86.35 tons per twelve (12) consecutive month period in the production of cold mix (stockpile mix) asphalt.

(b) The volume percent of diluent in the cutback asphalt shall not exceed 7%.

(c) The VOC content of the diluent shall not exceed 95% by weight.

D.2.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility.

Compliance Determination Requirements

D.2.4 Testing Requirements [326 IAC 2-8-5(a)(1), (4)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the VOC limit specified in Condition D.2.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.2.5 Record Keeping Requirements

(a) To document compliance with Condition D.2.2, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.4.2.

(1) asphalt used in current month;

(2) asphalt used the last twelve (12) months;

(3) type of asphalt used; and

(4) percent oil distillate in asphalt.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.6 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.2.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

SECTION D.3 FACILITY CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:
Three (3) storage tanks exhausting at stacks SV-3, SV-4, and SV-5, including:
(1) Two (2) liquid asphalt cement storage tanks, each with a capacity of 30,000 gallons;
(2) One (1) tack storage tank with a capacity of 10,000 gallons;
(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.3.1 Volatile Organic Compounds (VOCs) [326 IAC 12] [40 CFR 60.110b, Subpart Kb]

(a) Pursuant to 40 CFR Part 60.110b, Subpart Kb (Standards of Performance for Volatile Organic Liquid Storage Vessels), the two (2) 30,000 gallon asphalt cement storage tanks, each with a vapor pressure of less than 15.0 kPa, are subject to 40 CFR Part 60.116b, paragraphs (a), (b), and (d) which require record keeping.

D.3.2 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.3.3 Record Keeping Requirements

(a) To document compliance with Condition D.3.1, the Permittee shall maintain permanent records at the source in accordance with (1) through (3) below:

(1) the dimension of each storage vessel;

(2) an analysis showing the capacity of each storage vessel; and

(3) the true vapor pressure of each VOC stored in each of the two (2) 30,000 gallon asphalt cement storage tanks, indicating that the maximum true vapor pressure of VOC is less than 15.0 kPa.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION
and Anderson Office of Air Management

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: E & B Paving, Inc.
Source Address: SR 67 & I-69, Anderson, Indiana 46012
Mailing Address: 286 West 300 North, Anderson, Indiana 46012
FESOP No.: F095-7780-03257

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

9 Annual Compliance Certification Letter

9 Test Result (specify) _____

9 Report (specify) _____

9 Notification (specify) _____

9 Affidavit (specify) _____

9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

COMPLIANCE DATA SECTION
P.O. Box 6015
100 North Senate Avenue
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967

Anderson Office of Air Management

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY/DEVIATION OCCURRENCE REPORT

Source Name: E & B Paving, Inc.
Source Address: SR 67 & I-69 Anderson, Indiana 46012
Mailing Address: 286 West 300 North, Anderson, Indiana 46012
FESOP No.: F095-7780-03257

This form consists of 2 pages **Page 1 of 2**

Check either No. 1 or No.2
9 1. This is an emergency as defined in 326 IAC 2-7-1(12) ĆThe Permittee must notify the Office of Air Management (OAM), within four (**4**) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and ĆThe Permittee must submit notice in writing or by facsimile within two (**2**) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16
9 2. This is a deviation, reportable per 326 IAC 2-8-4(3)(C) ĆThe Permittee must submit notice in writing within ten (**10**) calendar days

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency/Deviation:
Describe the cause of the Emergency/Deviation:

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency/Deviation started:
Date/Time Emergency/Deviation was corrected:
Was the facility being properly operated at the time of the emergency/deviation? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency/deviation:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____
Title / Position: _____
Date: _____
Phone: _____

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION
Anderson Office of Air Management

FESOP Quarterly Report

Source Name: E & B Paving, Inc.
Source Address: SR 67 & I-69 Anderson, Indiana 46012
Mailing Address: 286 West 300 North, Anderson, Indiana 46012
FESOP No.: F095-7780-03257
Facility: drum mix dryer
Parameter: Sulfur Dioxide (SO_2)
Limit: The input of No. 2 distillate fuel oil with a maximum sulfur content of 0.5% and No. 2 distillate fuel oil equivalents to the 150.0 MMBtu per hour burner for the aggregate dryer shall be limited to 2,414,607 U.S. gallons per twelve (12) consecutive month period, rolled on a monthly basis. For purposes of determining compliance, every million cubic feet of natural gas burned shall be equivalent to 7.6 gallons of of No. 2 distillate fuel oil based on SO_2 emissions and a maximum sulfur content of 0.5 percent such that the total gallons of No. 2 distillate fuel oil and No. 2 distillate fuel oil equivalent input does not exceed the limit specified.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	No. 2 Distillate Fuel Oil and Equivalent Usage This Month	No. 2 Distillate Fuel Oil and Equivalent Usage Previous 11 Months	12 Month Total No. 2 Distillate Fuel Oil and Equivalent Usage
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION
Anderson Office of Air Management

FESOP Quarterly Report

Source Name: E & B Paving, Inc.
Source Address: SR 67 & I-69 Anderson, Indiana 46012
Mailing Address: 286 West 300 North, Anderson, Indiana 46012
FESOP No.: F095-7780-03257
Facility: drum mix dryer
Parameter: Oxides of Nitrogen (NOx)
Limit: The input of natural gas and natural gas equivalents to the 150.0 MMBtu per hour burner for the aggregate dryer shall be limited to 707.77 million cubic feet per twelve (12) consecutive month period, rolled on a monthly basis. For purposes of determining compliance, every 1,000 gallons of No. 2 distillate fuel oil burned shall be equivalent to 0.08572 million cubic feet of natural gas based on NO_x emissions, such that the total million cubic feet of natural gas and natural gas equivalent input does not exceed the limit specified.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	Natural Gas and Equivalent Usage This Month	Natural Gas and Equivalent Usage Previous 11 Months	12 Month Total Natural Gas and Equivalent Usage
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION
Anderson Office of Air Management

FESOP Quarterly Report

Source Name: E & B Paving, Inc.
Source Address: SR 67 & I-69 Anderson, Indiana 46012
Mailing Address: 286 West 300 North, Anderson, Indiana 46012
FESOP No.: F095-7780-03257
Facility: cold mix storage pile
Parameter: Volatile Organic Compounds (VOC)
Limit: The usage of diluent in cold mix production shall be limited to 90.89 tons per twelve (12) consecutive month period, rolled on a monthly basis.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	Diluent Usage This Month	Diluent Usage Previous 11 Months	12 Month Total Diluent Usage
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION
Anderson Office of Air Management

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY COMPLIANCE MONITORING REPORT

Source Name: E & B Paving, Inc.
Source Address: SR 67 & I-69 Anderson, Indiana 46012
Mailing Address: 286 West 300 North, Anderson, Indiana 46012
FESOP No.: F095-7780-03257

Months: _____ **to** _____ **Year:** _____

This report is an affirmation that the source has met all the compliance monitoring requirements stated in this permit. This report shall be submitted quarterly based on a calendar year. Any deviation from the compliance monitoring requirements and the date(s) of each deviation must be reported. Additional pages may be attached if necessary. This form can be supplemented by attaching the Emergency/Deviation Occurrence Report. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD.

Compliance Monitoring Requirement (eg. Permit Condition D.1.3)	**Number of Deviations**	**Date of each Deviation**

Form Completed By: _____
Title/Position: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Management
and
Anderson Office of Air Management

Addendum to the
Technical Support Document for a Federally Enforceable State Operating Permit
(FESOP)

Source Name:	E & B Paving, Inc.
Source Location:	SR 67 & I-69 Anderson, Indiana 46012
County:	Madison
Construction Permit No.:	F095-7780-03257
SIC Code:	234110
Permit Reviewer:	Lisa M. Wasiowich/EVP

On September 9, 2000, the Office of Air Management (OAM) had a notice published in the Herald Bulletin, Anderson, Indiana, stating that E & B Paving had applied for a Federally Enforceable State Operating Permit (FESOP) for the operation of a hot drum mix asphalt plant. The notice also stated that OAM proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

OAM decided to revise the proposed FESOP permit as follows:

(1) The Emergency/Deviation Occurrence Report Form should be sent to the Air Compliance Branch, therefore, the Compliance Data Section on line number 3 of page 38 has been changed to Air Compliance Branch.

(2) Condition D.1.4 (c)(1) mistakenly states that "every 1,000 gallons of No. 2 distillate fuel oil burned shall be equivalent to 0.9363 million cubic feet of natural gas based on NO_x emissions, such that the total million cubic feet of natural gas and natural gas equivalent input does not exceed the limit specified", however the conversion factor should be 0.08572.

Condition D.1.4 (Fuel Usage) has been changed as follows to reflect the correct conversion factor:

D.1.4 Fuel Usage [326 IAC 2-8-4]

Pursuant to 326 IAC 2-8-4(1), the following limits shall apply:

(a) The input of natural gas and natural gas equivalents to the 150.0 MMBtu per hour burner for the aggregate dryer shall be limited to 707.77 million cubic feet (MMcf) per twelve (12) consecutive month period, rolled on a monthly basis, so that NOx emissions are limited below 100 tons per year.

(b) The input of No. 2 fuel oil, with a maximum sulfur content of 0.5 weight percent, and No. 2 fuel oil equivalents to the 150.0 MMBtu per hour burner for the aggregate dryer shall be limited to 2,414,607 U.S. gallons per twelve (12) consecutive month period, rolled on a monthly basis, so that SO_2 emissions are limited below 100 tons per year.

(c) For purposes of determining compliance, the following shall apply:

(1) every 1,000 gallons of No. 2 distillate fuel oil burned shall be equivalent to ~~0.9363~~ **0.08572** million cubic feet of natural gas based on NO_x emissions, such that the total million cubic feet of natural gas and natural gas equivalent input does not exceed the limit specified;

(2) every million cubic feet of natural gas burned shall be equivalent to 7.6 gallons of No. 2 distillate fuel oil based on SO_2 emissions and a maximum sulfur content of 0.5 percent such that the total gallons of No. 2 distillate fuel oil and No. 2 distillate fuel oil equivalent input does not exceed the limit specified;

Therefore, the requirements of 326 IAC 2-7 will not apply.

This change was also made to the "Limit" on the quarterly report form (page 41 of 43) for the drum mix dryer.

Limit: The input of natural gas and natural gas equivalents to the 150.0 MMBtu per hour burner for the aggregate dryer shall be limited to 707.77 million cubic feet per twelve (12) consecutive month period, rolled on a monthly basis. For purposes of determining compliance, every 1,000 gallons of No. 2 distillate fuel oil burned shall be equivalent to ~~0.9363~~ **0.08572** million cubic feet of natural gas based on NO_x emissions, such that the total million cubic feet of natural gas and natural gas equivalent input does not exceed the limit specified.

The calculation of the conversion factor from 1000 gallons of No. 2 distillate fuel oil burned to million cubic feet of natural gas has also been corrected on page 14 of 17 of the calculation in the TSD Addendum Appendix A (attached).

(3) Condition D.1.6 (Testing Requirements) has been changed to read as follows:

D.1.6 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

Within 36 months after issuance of this permit, the Permittee shall perform PM, and PM-10 testing utilizing ~~Methods 5 or 17 (40 CFR 60, Appendix A) for PM, and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM-10, or other methods as approved by the Commissioner~~ **methods acceptable to the department**. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C-Performance Testing.

(4) The following changes have been made to the calculations in the TSD Addendum Appendix A on page 14 of 17 (attached):

(a) for the NO_x limitation of natural gas, the potential natural gas usage should be 1288.24 **Mmcf/year** potential and not 1288.24 ~~Kgals/year~~ potential;

(b) for the NO_x limitation of natural gas, the limited natural gas usage should be 703.77 **Mmcf/year** limited and not 703.77 ~~Kgals/year~~ limited;

(c) for the SO_2 limitation of natural gas, the potential gas usage should be 1288.24 **Mmcf/year** potential and not 1288.24 ~~Kgals/year~~ potential; and

(d) for the SO_2 limitation of natural gas, the limited natural gas usage should be 315911.05 **Mmcf/year** limited and not 315911.05 ~~Kgals/year~~ limited.

Indiana Department of Environmental Management
Office of Air Management
and Anderson Office of Air Management

Technical Support Document (TSD) for a Federally Enforceable State Operating Permit (FESOP)

Source Background and Description

Source Name:	**E & B Paving, Inc.**
Source Location:	**SR 67 & I-69 Anderson, Indiana 46012**
County:	**Madison**
SIC Code:	**234110**
Operation Permit No.:	**F095-7780-03257**
Permit Reviewer:	**Lisa M. Wasiowich, EVP**

The Office of Air Management (OAM) has reviewed a FESOP application from E & B Paving, Inc. relating to the operation of a hot drum-mix asphalt plant, with a maximum capacity of 350 tons per hour.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

(a) One (1) hot asphalt drum mix dryer, capable of processing a maximum of 350 tons per hour of raw material, equipped with one (1) 150 million British thermal units (MMBtu) per hour natural gas fired burner using #2 distillate fuel oil gas as backup fuels, equipped with one (1) baghouse for particulate matter control, exhausting through one (1) stack, identified as stack SV-1;

(b) Fugitive emissions from unpaved roads; and

(c) One (1) cold mix storage pile, total storage capacity 3000 tons.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) One (1) 2.353 million British Thermal Units (MMBtu) per hour hot oil heater firing natural gas as the primary fuel and # 2 distillate fuel oil as the backup fuel, and exhausting to stack SV-2;

(b) Three (3) asphalt storage silos;

(c) Three (3) storage piles, including:

(1) Two (2) reclaimed asphalt pavement (RAP) piles, total capacity 20,000 tons;

(2) One (1) recycled shingles pile, total capacity 3,000 tons;

(d) Nine (9) feed bins, including:

(1) Eight (8) cold feed bins for coarse to fine aggregate;

(2) One (1) feed bin for recycled asphalt pavement and recycled shingles;

(e) Five (5) conveyors, including:

(1) Three (3) transporting coarse to fine aggregate to the drum mixer;

(2) One (1) transporting recycled asphalt pavement and recycled shingles to the drum mixer;

(3) One (1) drag slat conveyor transporting hot mixed asphalt to the asphalt storage silos;

(f) Three (3) storage tanks exhausting at stacks SV-3, SV-4, and SV-5, including:

(1) Two (2) liquid asphalt cement storage tanks, each with a capacity of 30,000 gallons;

(2) One (1) tack storage tank with a capacity of 10,000 gallons.;

(g) One (1) truck loading operation;

(h) One (1) materials testing laboratory;

(i) One (1) screening operation;

(j) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons; and

(k) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

(a) 1996 Certificate to Operate # 2202 from Anderson Office of Air Management.

(b) Exemption Construction Permit 095-4683-03257, issued on August 2, 1995.

All conditions from previous approvals were incorporated into this FESOP.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
SV-1	aggregate dryer & dryer burner	30.25	4'1 5/8 x 2'	68,145	280
SV-2	hot oil heater	9	4"	350	500
SV-3	storage tank	13	4"	16	300
SV-4	storage tank	13	4"	16	300
SV-5	storage tank	10	3"	16	ambient

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the FESOP be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete FESOP application for the purposes of this review was received on December 13, 1996.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (pages 1 through 17.)

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	29,271.34
PM-10	6,779.68
SO_2	373.62
VOC	200.39
CO	54.95
NO_x	181.83

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
Acrolein	3.99 E -2
Antimony	2.50 E -2
Arsenic	6.29 E -3
Benzene	1.84
Beryllium	1.33 E -4
Cadmium	2.57 E -3
Chromium	2.24 E -2
Chromium VI	1.18 E -3
Cobalt	2.87 E -2
Ethyl benzene	5.83 E -1
Formaldehyde	5.57
Hexane	1.18
Lead	1.23 E -2
Manganese	3.12 E -2
Mercury	5.50 E -4
Methyl chloroform	7.36 E -2
Methyl ethyl ketone	3.07 E -2
Naphthalene	4.81 E -1
Nickel	4.26 E -1
Propionaldehyde	1.99 E -1
Quinone	2.45 E -1
Selenium	3.26 E -3
1,1,1-Trichloroethane	1.12 E -3
Tolulene	1.18
Xylene	6.14 E -1
TOTAL	12.6

(a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of particulate matter (PM_{10}), sulfur dioxide (SO_2), oxides of nitrogen (NO_x), and volatile organic compounds (VOC) are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(b) This source, otherwise required to obtain a Title V permit, has agreed to accept a permit with federally enforceable limits that restrict its PTE to below the Title V emission levels. Therefore, this source will be issued a Federally Enforceable State Operating Permit (FESOP), pursuant to 326 IAC 2-8.

(c) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD and Emission Offset applicability.

Actual Emissions

No previous emission data has been received from the source.

Potential to Emit After Issuance

(a) The source has accepted a federally enforceable limit on potential to emit SO_2 of less than 100 tons per year. Source wide SO_2 emissions are limited to less than 100 tons per year, consisting of:

(1) Less than 94.77 tons per year for the aggregate dryer burner (by limiting the No. 2 distillate fuel oil and No. 2 distillate fuel oil equivalents usage to 2,414,607 gallons per year, based on less than 0.5 weight percent sulfur content)); and

(2) 5.23 tons per year for the hot oil heater.

(b) The source has accepted a federally enforceable limit on potential to emit NO_x of less than 100 tons per year. Source wide NO_x emissions are limited to less than 100 tons per year, consisting of:

(1) Less than 98.53 tons per year for the aggregate dryer burner (by limiting the natural gas and natural gas equivalents usage to 707.77 MMcf per year)); and

(2) 1.47 tons per year for the hot oil heater.

(c) The source has accepted a federally enforceable limit on potential to emit VOC of less than 100 tons per year. Source wide VOC emissions are limited to less than 100 tons per year by limiting the usage of diluent in cold mix production to 90.89 tons per year.

(d) The source has accepted a federally enforceable limit on potential to emit PM and PM-10 of less than 100 tons per year. Source wide PM and PM-10 emissions are controlled to less than 100 tons per year by controlling the hot mix aggregate dryer with a baghouse.

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Federally Enforceable State Operating Permit.

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
Hot oil heater	0.15	0.08	5.23	0.09	0.85	1.47	0.03
Aggregate dryer	29.13	6.75	< 94.77	13.56	29.56	< 98.53	11.63
truck loading	0.32	0.15	0.00	0.00	0.00	0.00	0.00
conveying	0.62	0.29	0.00	0.00	0.00	0.00	0.00
screening	2.70	1.29	0.00	0.00	0.00	0.00	0.00
batch drops	2.90	1.38	0.00	0.00	0.00	0.00	0.00
unpaved roads	25.64	5.27	0.00	0.00	0.00	0.00	0.00
storage piles	0.08	0.03	0.00	0.00	0.00	0.00	0.00
cold mix VOC storage	0.00	0.00	0.00	< 86.35	0.00	0.00	0.00
Total Emissions	61.53	15.24	< 100	< 100	30.41	< 100	11.66

County Attainment Status

The source is located in Madison County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_X emissions are considered when evaluating the rule applicability relating to the ozone standards. Madison County has been designated as attainment or unclassifiable for ozone.

Federal Rule Applicability

(a) This source is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.90, Subpart I), due to the fact that it was constructed prior to June 11, 1973.

(b) The two (2) 30,000 gallon asphalt storage tanks, the one (1) 10,000 gallon tack storage tank, and the gasoline fuel transfer and dispensing operation are not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.110, Subpart K, and 40 CFR 60.110a, Subpart Ka), due to the fact that the storage capacity of each tank is less than 40,000 gallons.

(c) The two (2) 30,000 gallon asphalt storage tanks are subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.110b, Subpart Kb) because the tanks were constructed after July 23, 1984, and have a storage capacity greater than 40 cubic meters. However, since the tanks have a storage capacity greater than 75 cubic meters but less than 151 cubic meters, and the liquid stored in the tanks has a maximum true vapor pressure of less than 15.0 kPa, the tanks are subject to only 40 CFR Part 60.116b, paragraphs (a), (b), and (d) which require record keeping.

(d) The one (1) 10,000 gallon tack storage tank, and the gasoline fuel transfer and dispensing operation are not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.110b, Subpart Kb), due to the fact that the storage capacity of the tanks are less than 40 cubic meters.

(e) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 61) applicable to this source.

(f) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 20 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 1-6-3 (Preventive Maintenance Plan)

The source has submitted a Preventive Maintenance Plan (PMP) as part of this FESOP permit application. This PMP has been verified to fulfill the requirements of 326 IAC 1-6-3 (Preventive Maintenance Plan).

326 IAC 2-2 (Prevention of Significant Deterioration)

This source is not subject to 326 IAC 2-2 (PSD). This rule applies to sources with potential emissions of any criteria pollutant greater than or equal to 250 tons per year. This source will limit No. 2 distillate fuel oil usage in the aggregate dryer such that associated SO_2 emissions do not exceed 94.77 tons per year for a source wide SO_2 emission limit of less than 100 tons per year, and control PM and PM-10 emissions from the aggregate dryer with a baghouse. Therefore, the requirements of 326 IAC 2-2 do not apply.

326 IAC 2-4.1-1 (New Source Toxics Control)

This source is not subject to 326 IAC 2-4.1-1 (New Source Toxics Control) because the source has PTE of any HAP less than 10 tons per year and PTE of any combination of HAPs less than 25 tons per year. Therefore, 326 IAC 2-4.1-1 does not apply.

326 IAC 2-6 (Emission Reporting)

This source is not subject to 326 IAC 2-6 (Emission Reporting), because it is located in Madison County and has the potential to emit less than one hundred (100) tons per year of particulate matter (PM, PM_{10}), sulfur dioxide (SO_2), and oxides of nitrogen (NO_x).

326 IAC 2-8-4 (FESOP)

This source is subject to 326 IAC 2-8-4 (FESOP). Pursuant to this rule, usage of natural gas and natural gas equivalents in the aggregate dryer burner shall be limited to 703.77 million cubic feet per year so that NO_x emissions are limited below 100 tons per year. The usage of No. 2 distillate fuel oil, with a maximum sulfur content of 0.5% and No. 2 distillate fuel oil equivalents in the aggregate dryer burner shall be limited to 2,414,607 U.S. gallons per year so that SO_2 emissions are limited below 100 tons per year. Sourcewide PM-10 emissions are limited to less than 100 tons per year by controlling the aggregate dryer with a baghouse. The VOC usage in the production of cold mix (stockpile mix) asphalt shall be limited to 85.38 tons per 365 day period, rolled on a daily basis. This is equivalent to a usage of diluent of 90.89 tons per 365 day period in the production of cold mix (stockpile mix) asphalt based on 95% volatilization. Therefore, the requirements of 326 IAC 2-7 do not apply.

326 IAC 5-1 (Visible Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6-4 (Fugitive Dust Emissions)

This source is subject to 326 IAC 6-4 for fugitive dust emissions. Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions), fugitive dust shall not be visible crossing the boundary or property line of a source. Observances of visible emissions crossing property lines may be refuted by factual data expressed in 326 IAC 6-4-2(1), (2) or (3).

326 IAC 6-5 (Fugitive Particulate Matter Emissions Limitations)

This hot drum mix asphalt plant is subject to 326 IAC 6-5, for a new source which has not received all the necessary preconstruction approvals before December 13, 1985. Pursuant to the rule, a fugitive dust plan must be submitted, reviewed and approved. The source's submitted, reviewed and approved fugitive dust control plan consists of the following:

(a) Fugitive particulate matter emissions from interior roads and parking lots shall be controlled by paving with asphalt, or treating with emulsified asphalt, calcium chloride or water on an as needed basis.

(b) Fugitive particulate matter emissions from conveying of aggregate shall be controlled by treating with water on an as needed basis.

(c) Fugitive particulate matter emissions from the transferring of aggregates shall be controlled by locating stockpiles as close as possible to feed bins, limiting transfer points to three foot drops or less or applying water on an as needed basis.

(d) Fugitive particulate matter emissions from the transporting of aggregates shall be controlled by tarping the aggregate hauling vehicles, insuring tailgates are tight and do not leak, and maintaining a 10 MPH speed limit on site.

(e) Fugitive particulate matter emissions from the loading and unloading of aggregates shall be controlled by limiting the free fall distance, limiting the rate of discharge of the aggregate, and applying water on an as needed basis.

326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving)

No person shall cause or allow the use of cutback asphalt or asphalt emulsion containing more than seven percent (7%) oil distillate by volume of emulsion for any paving application except the following purposes:

(a) penetrating prime coating
(b) stockpile storage
(c) application during the months of November, December, January, February and March.

State Rule Applicability - Individual Facilities

326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from the hot mix aggregate dryer shall be limited to 64.76 pounds per hour for processing 350 tons of raw material per hour (0.185 lb/ton) by the following:

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 55.0 P^{0.11} - 40$ where E = rate of emission in pounds per hour and P = process weight rate in tons per hour

$E = 55.0(350)^{0.11} - 40$
E = 64.76 pounds per hour

PM emissions from the hot mix aggregate dryer are controlled by a baghouse to 6.65 pounds per hour and will be in compliance with the limit.

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

The sulfur dioxide emissions from the 150 MMBtu/hr dryer burning distillate oil shall be limited to 0.5 lb/MMBtu heat input. This equates to a fuel oil sulfur content limit of 0.5%. Therefore, the sulfur content of the fuel must be less than or equal to 0.5% in order to comply with this rule (See Appendix A, Page 16 of 16 for detailed calculations). The source will comply with this rule by using No. 2 distillate fuel oil with a maximum sulfur content of 0.5% or less in the dryer and hot oil heater.

326 IAC 7-2-1 (Sulfur Dioxide Reporting Requirements)

The 150 MMBtu per hour aggregate dryer burner is subject to 326 IAC 7-2-1 (Reporting Requirements). This rule requires the source to submit to the Office of Air Management upon request records of sulfur content, heat content, fuel consumption, and sulfur dioxide emission rates based on a calendar-month average.

Testing Requirements

Testing is required for the aggregate dryer because it accounts for greater than 40% of the potential to emit before controls for PM and PM-10, which are major pollutants for this source.

Potential PM emissions = 29,127.00 tons per year
Potential PM_{10} emissions = 6,745.20 tons per year

Total PM emissions = 29,283.76 tons per year 40% of Total = 0.4 * 29,283.76 = 11713.50
Total PM_{10} emissions = 6,781.72 tons per year 40% of Total = 0.4 * 6,781.72 = 2712.69

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

1. The aggregate dryer has applicable compliance monitoring conditions as specified below:

   (a) Daily visible emissions notations of the aggregate dryer exhaust shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

   (b) The Permittee shall record the total static pressure drop across the baghouse controlling the aggregate drying system, at least once daily when the aggregate drying system is in operation. Unless operated under conditions for which the

Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 to 6.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

(c) An inspection shall be performed each calender quarter of all bags controlling the aggregate dryer when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

(d) In the event that bag failure has been observed the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced.

These monitoring conditions are necessary because the baghouse for the aggregate drying process must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-8 (FESOP).

Conclusion

The operation of this hot drum mix asphalt manufacturing facility shall be subject to the conditions of the attached proposed **FESOP No.: F095-7780-00034.**

Company Name:	E & B Paving
Plant Location:	SR 67 & I-69
County:	Madison
Date Received:	December 13, 1996
Permit Reviewer:	Lisa M. Wasiowich

**** hot oil heater****

The following calculations determine the amount of emissions created by natural gas combustion, from hot oil heating, based on 8,760 hours of operation and US EPA's AP-42, 5th Edition, Section 1.4 - Natural Gas Combustion, Tables 1.4-1, 1.4-2, and 1.4-3.

Criteria Pollutant: 2.353 MMBtu/hr * 8,760 hr/yr / 1020 Btu/cf * 2,000 lb/ton * Ef (lb/MMcf) = (ton/yr)

P M:	7.60	lb/MMcf =	**0.08 ton/yr**
P M-10:	7.60	lb/MMcf =	**0.08 ton/yr**
S O 2:	0.6	lb/MMcf =	**0.01 ton/yr**
N O x:	100.0	lb/MMcf =	**1.01 ton/yr**
V O C:	5.5	lb/MMcf =	**0.06 ton/yr**
C O:	84.0	lb/MMcf =	**0.85 ton/yr**
Arsenic:	2.0E-04	lb/MMcf =	**2.0E-06 ton/yr**
Benzene:	2.1E-03	lb/MMcf =	**2.1E-05 ton/yr**
Beryllium:	1.2E-05	lb/MMcf =	**1.2E-07 ton/yr**
Cadmium:	1.1E-03	lb/MMcf =	**1.1E-05 ton/yr**
Chromium:	1.4E-03	lb/MMcf =	**1.4E-05 ton/yr**
Cobalt:	8.4E-05	lb/MMcf =	**8.5E-07 ton/yr**
Formaldehyde:	7.5E-02	lb/MMcf =	**7.6E-04 ton/yr**
Hexane:	1.8E+00	lb/MMcf =	**1.8E-02 ton/yr**
Lead:	5.0E-04	lb/MMcf =	**5.1E-06 ton/yr**
Manganese:	3.8E-04	lb/MMcf =	**3.8E-06 ton/yr**
Mercury:	2.6E-04	lb/MMcf =	**2.6E-06 ton/yr**
Naphthalene	6.1E-04	lb/MMcf =	**6.2E-06 ton/yr**
Nickel:	2.1E-03	lb/MMcf =	**2.1E-05 ton/yr**
Selenium:	2.4E-05	lb/MMcf =	**2.4E-07 ton/yr**
Tolulene:	3.4E-03	lb/MMcf =	**3.4E-05 ton/yr**

The following calculations determine the amount of emissions created by the combustion of #2 distillate fuel oil @ 0.50 % sulfur, from hot oil heating, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Tables 1.3-1, 1.3-3, 1.3-4, and 1.3-8.

Criteria Pollutant: 2.353 MMBtu/hr * 8,760 hr/yr / 140,000 Btu/gal * 2,000 lb/ton * Ef (lb/1,000 gal) = (ton/yr)

P M:	2.0	lb/1000 gal =	**0.15 ton/yr**
P M-10:	1.0	lb/1000 gal =	**0.07 ton/yr**
S O 2:	71.0	lb/1000 gal =	**5.23 ton/yr**
N O x:	20.0	lb/1000 gal =	**1.47 ton/yr**
V O C:	0.56	lb/1000 gal =	**0.04 ton/yr**
C O:	5.0	lb/1000 gal =	**0.37 ton/yr**
Antimony:	5.25E-03	lb/1000 gal =	**3.9E-04 ton/yr**
Arsenic:	1.32E-03	lb/1000 gal =	**9.7E-05 ton/yr**
Benzene:	2.14E-04	lb/1000 gal =	**1.6E-05 ton/yr**
Beryllium:	2.78E-05	lb/1000 gal =	**2.0E-06 ton/yr**
Cadmium:	3.98E-04	lb/1000 gal =	**2.9E-05 ton/yr**
Chromium:	8.45E-04	lb/1000 gal =	**6.2E-05 ton/yr**
Chromium VI:	2.48E-04	lb/1000 gal =	**1.8E-05 ton/yr**
Cobalt:	6.02E-03	lb/1000 gal =	**4.4E-04 ton/yr**
Ethylbenzene:	6.36E-05	lb/1000 gal =	**4.7E-06 ton/yr**
Lead:	1.51E-03	lb/1000 gal =	**1.1E-04 ton/yr**
Manganese:	3.00E-03	lb/1000 gal =	**2.2E-04 ton/yr**
Mercury:	1.13E-04	lb/1000 gal =	**8.3E-06 ton/yr**
Napthalene:	1.13E-03	lb/1000 gal =	**8.3E-05 ton/yr**
Nickel:	8.45E-02	lb/1000 gal =	**6.2E-03 ton/yr**

Selenium:	6.83E-04 lb/1000 gal =	**5.0E-05 ton/yr**	
1,1,1-Trichloroethane	2.36E-04 lb/1000 gal =	**1.7E-05 ton/yr**	
Toluene	6.20E-03 lb/1000 gal =	**4.6E-04 ton/yr**	
o-Xylene	1.09E-04 lb/1000 gal =	**8.0E-06 ton/yr**	

Since the two fuels cannot be operated concurrently, the maximum potential emissions from the hot oil heater due to fuel combustion is as follows:

Criteria Pollutant:		**Worst Case Fuel**
P M:	**0.15 ton/yr**	No. 2 Fuel Oil
P M-10:	**0.08 ton/yr**	Natural Gas
S O 2:	**5.23 ton/yr**	No. 2 Fuel Oil
N O x:	**1.47 ton/yr**	No. 2 Fuel Oil
V O C:	**0.06 ton/yr**	Natural Gas
C O:	**0.85 ton/yr**	Natural Gas
Antimony:	**3.9E-04 ton/yr**	No. 2 Fuel Oil
Arsenic:	**9.7E-05 ton/yr**	No. 2 Fuel Oil
Benzene:	**2.1E-05 ton/yr**	Natural Gas
Beryllium:	**2.0E-06 ton/yr**	No. 2 Fuel Oil
Cadmium:	**2.9E-05 ton/yr**	No. 2 Fuel Oil
Chromium:	**6.2E-05 ton/yr**	No. 2 Fuel Oil
Chromium VI:	**1.8E-05 ton/yr**	No. 2 Fuel Oil
Cobalt:	**4.4E-04 ton/yr**	No. 2 Fuel Oil
Ethylbenzene:	**4.7E-06 ton/yr**	No. 2 Fuel Oil
Formaldehyde:	**7.6E-04 ton/yr**	Natural Gas
Hexane:	**1.8E-02 ton/yr**	Natural Gas
Lead:	**1.1E-04 ton/yr**	No. 2 Fuel Oil
Manganese:	**2.2E-04 ton/yr**	No. 2 Fuel Oil
Mercury:	**8.3E-06 ton/yr**	No. 2 Fuel Oil
Naphthalene:	**8.3E-05 ton/yr**	No. 2 Fuel Oil
Nickel:	**6.2E-03 ton/yr**	No. 2 Fuel Oil
Selenium:	**5.0E-05 ton/yr**	No. 2 Fuel Oil
1,1,1-Trichloroethane:	**1.7E-05 ton/yr**	No. 2 Fuel Oil
Tolulene:	**4.6E-04 ton/yr**	No. 2 Fuel Oil
o-Xylene:	**8.0E-06 ton/yr**	No. 2 Fuel Oil
Total HAPs:	**2.7E-02 ton/yr**	All HAPs are considered VOC

**** aggregate dryer burner****

The following calculations determine the amount of emissions created by natural gas combustion, from the aggregate dryer burner, based on 8,760 hours of operation and US EPA's AP-42, 5th Edition, Section 1.4 - Natural Gas Combustion, Tables 1.4-1, 1.4-2, and 1.4-3.

Criteria Pollutant: 150 MMBtu/hr * 8,760 hr/yr / 1020 Btu/cf * 2,000 lb/ton * Ef (lb/MMcf) = (ton/yr)

P M:	7.60	lb/MMcf =	**4.90**	**ton/yr**
P M-10:	7.60	lb/MMcf =	**4.90**	**ton/yr**
S O 2:	0.6	lb/MMcf =	**0.39**	**ton/yr**
N O x:	280.0	lb/MMcf =	**180.35**	**ton/yr**
V O C:	5.5	lb/MMcf =	**3.54**	**ton/yr**
C O:	84.0	lb/MMcf =	**54.11**	**ton/yr**
Arsenic:	2.0E-04	lb/MMcf =	**1.3E-04**	**ton/yr**
Benzene:	2.1E-03	lb/MMcf =	**1.4E-03**	**ton/yr**
Beryllium:	1.2E-05	lb/MMcf =	**7.7E-06**	**ton/yr**
Cadmium:	1.1E-03	lb/MMcf =	**7.1E-04**	**ton/yr**
Chromium:	1.4E-03	lb/MMcf =	**9.0E-04**	**ton/yr**
Cobalt:	8.4E-05	lb/MMcf =	**5.4E-05**	**ton/yr**
Formaldehyde:	7.5E-02	lb/MMcf =	**4.8E-02**	**ton/yr**
Hexane:	1.8E+00	lb/MMcf =	**1.2E+00**	**ton/yr**
Lead:	5.0E-04	lb/MMcf =	**3.2E-04**	**ton/yr**
Manganese:	3.8E-04	lb/MMcf =	**2.4E-04**	**ton/yr**
Mercury:	2.6E-04	lb/MMcf =	**1.7E-04**	**ton/yr**
Naphthalene	6.1E-04	lb/MMcf =	**3.9E-04**	**ton/yr**
Nickel:	2.1E-03	lb/MMcf =	**1.4E-03**	**ton/yr**
Selenium:	2.4E-05	lb/MMcf =	**1.5E-05**	**ton/yr**
Tolulene:	3.4E-03	lb/MMcf =	**2.2E-03**	**ton/yr**

The following calculations determine the amount of emissions created by the combustion of #2 distillate fuel oil @ 0.50 % sulfur, from the aggregate dryer burner, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Tables 1.3-2, 1.3-4, and 1.3-7.

Criteria Pollutant: 150 MMBtu/hr * 8,760 hr/yr / 140,000 Btu/gal * 2,000 lb/ton * Ef (lb/1,000 gal) = (ton/yr)

P M:	2.0	lb/1000 gal =	**9.39**	**ton/yr**
P M-10:	1.0	lb/1000 gal =	**4.69**	**ton/yr**
S O 2:	78.5	lb/1000 gal =	**368.39**	**ton/yr**
N O x:	24.0	lb/1000 gal =	**112.63**	**ton/yr**
V O C:	0.56	lb/1000 gal =	**2.61**	**ton/yr**
C O:	5.0	lb/1000 gal =	**23.46**	**ton/yr**
Antimony:	5.25E-03	lb/1000 gal =	**2.5E-02**	**ton/yr**
Arsenic:	1.32E-03	lb/1000 gal =	**6.2E-03**	**ton/yr**
Benzene:	2.14E-04	lb/1000 gal =	**1.0E-03**	**ton/yr**
Beryllium:	2.78E-05	lb/1000 gal =	**1.3E-04**	**ton/yr**
Cadmium:	3.98E-04	lb/1000 gal =	**1.9E-03**	**ton/yr**
Chromium:	8.45E-04	lb/1000 gal =	**4.0E-03**	**ton/yr**
Chromium VI:	2.48E-04	lb/1000 gal =	**1.2E-03**	**ton/yr**
Cobalt:	6.02E-03	lb/1000 gal =	**2.8E-02**	**ton/yr**
Ethylbenzene:	6.36E-05	lb/1000 gal =	**3.0E-04**	**ton/yr**
Lead:	1.51E-03	lb/1000 gal =	**7.1E-03**	**ton/yr**
Manganese:	3.00E-03	lb/1000 gal =	**1.4E-02**	**ton/yr**
Mercury:	1.13E-04	lb/1000 gal =	**5.3E-04**	**ton/yr**
Napthalene:	1.13E-03	lb/1000 gal =	**5.3E-03**	**ton/yr**
Nickel:	8.45E-02	lb/1000 gal =	**4.0E-01**	**ton/yr**
Selenium:	6.83E-04	lb/1000 gal =	**3.2E-03**	**ton/yr**
1,1,1-Trichloroethane	2.36E-04	lb/1000 gal =	**1.1E-03**	**ton/yr**
Toluene	6.20E-03	lb/1000 gal =	**2.9E-02**	**ton/yr**
o-Xylene	1.09E-04	lb/1000 gal =	**5.1E-04**	**ton/yr**

Since the two fuels cannot be operated concurrently, the maximum potential emissions from the aggregate dryer due to fuel combustion is as follows:

Criteria Pollutant:			Worst Case Fuel
P M:	**9.39**	**ton/yr**	No. 2 Fuel Oil
P M-10:	**4.90**	**ton/yr**	Natural Gas
S O 2:	**368.39**	**ton/yr**	No. 2 Fuel Oil
N O x:	**180.35**	**ton/yr**	Natural Gas
V O C:	**3.54**	**ton/yr**	Natural Gas
C O:	**54.11**	**ton/yr**	Natural Gas
Antimony:	**2.5E-02**	**ton/yr**	No. 2 Fuel Oil
Arsenic:	**6.2E-03**	**ton/yr**	No. 2 Fuel Oil
Benzene:	**1.4E-03**	**ton/yr**	Natural Gas
Beryllium:	**1.3E-04**	**ton/yr**	No. 2 Fuel Oil
Cadmium:	**1.9E-03**	**ton/yr**	No. 2 Fuel Oil
Chromium:	**4.0E-03**	**ton/yr**	No. 2 Fuel Oil
Chromium VI:	**1.2E-03**	**ton/yr**	No. 2 Fuel Oil
Cobalt:	**2.8E-02**	**ton/yr**	No. 2 Fuel Oil
Ethylbenzene:	**3.0E-04**	**ton/yr**	No. 2 Fuel Oil
Formaldehyde:	**4.8E-02**	**ton/yr**	Natural Gas
Hexane:	**1.2E+00**	**ton/yr**	Natural Gas
Lead:	**7.1E-03**	**ton/yr**	No. 2 Fuel Oil
Manganese:	**1.4E-02**	**ton/yr**	No. 2 Fuel Oil
Mercury:	**5.3E-04**	**ton/yr**	No. 2 Fuel Oil
Naphthalene:	**5.3E-03**	**ton/yr**	No. 2 Fuel Oil
Nickel:	**4.0E-01**	**ton/yr**	No. 2 Fuel Oil
Selenium:	**3.2E-03**	**ton/yr**	No. 2 Fuel Oil
1,1,1-Trichloroethane:	**1.1E-03**	**ton/yr**	No. 2 Fuel Oil
Tolulene:	**2.9E-02**	**ton/yr**	No. 2 Fuel Oil
o-Xylene:	**5.1E-04**	**ton/yr**	No. 2 Fuel Oil
Total HAPs:	**1.7E+00**	**ton/yr**	All HAPs are considered VOC

*** * aggregate drying: drum-mix plant * ***

The following calculations determine the amount of worst case emissions created by aggregate drying before controls, based on 8,760 hours of use and USEPA's AP-42, 5th Edition, Section 11.1 - Hot Mix Asphalt Plants, Tables 11.1-5 and 11.1-10 for a drum mix dryer which has the capability of combusting either fuel oil or natural gas:

emissions = (350 ton/hr / 2000 lb/ton) x 8760 hr/yr * emission facton

P M:	19.00	lb/ton	**29127.00**	**ton/yr**	
P M-10:	4.40	lb/ton	**6745.20**	**ton/yr**	
Acrolein:	2.6E-05	lb/ton	**4.0E-02**	**ton/yr**	
Arsenic:	1.1E-06	lb/ton	**1.7E-03**	**ton/yr**	
Benzene:	1.2E-03	lb/ton	**1.8E+00**	**ton/yr**	
Cadmium:	4.4E-07	lb/ton	**6.7E-04**	**ton/yr**	
Chromium:	1.2E-05	lb/ton	**1.8E-02**	**ton/yr**	
Ethylbenzene:	3.8E-04	lb/ton	**5.8E-01**	**ton/yr**	
Formaldehyde:	3.6E-03	lb/ton	**5.5E+00**	**ton/yr**	
Lead	3.3E-06	lb/ton	**5.1E-03**	**ton/yr**	
Manganese:	1.1E-05	lb/ton	**1.7E-02**	**ton/yr**	
Mercury:	7.3E-09	lb/ton	**1.1E-05**	**ton/yr**	
Methyl chloroform:	4.8E-05	lb/ton	**7.4E-02**	**ton/yr**	
Methyl ethyl ketone:	2.0E-05	lb/ton	**3.1E-02**	**ton/yr**	
Napthalene:	3.1E-04	lb/ton	**4.8E-01**	**ton/yr**	
Nickel:	1.5E-05	lb/ton	**2.3E-02**	**ton/yr**	
Propionaldehyde:	1.3E-04	lb/ton	**2.0E-01**	**ton/yr**	
Quinone:	1.6E-04	lb/ton	**2.5E-01**	**ton/yr**	
Tolulene:	7.5E-04	lb/ton	**1.1E+00**	**ton/yr**	
Xylene:	4.0E-04	lb/ton	**6.1E-01**	**ton/yr**	
Total HAPs:	7.1E-03	lb/ton	**1.1E+01**	**ton/yr**	All HAPs are considered VOC

*** * conveying / handling * ***

The following calculations determine the amount of emissions created by wet (>1.5% moisture) material handling, based on 8,760 hours of use and AP-42, Section 11.19.2, Table 11.19.2-2. Emission factors for process operations are as follows:

PM-10 Emissions Per Operation:

350 ton/hr * 8,760 hrs/yr * Ef (lb/ton of material) * Number of Similar Operations = (ton/yr)
2,000 lb/ton

Operation				
Truck Loading:	1 operation(s) x	1.0E-04 lb/ton of material =	0.15	ton/yr
Conveyor Transfers:	4 operation(s) x	4.8E-05 lb/ton of material =	0.29	ton/yr
Screening:	1 operation(s) x	8.4E-04 lb/ton of material =	1.29	ton/yr
Batch Drops:	9 operation(s) x	1.0E-04 lb/ton of material =	1.38	ton/yr
		Total PM 10 Emissions:	**3.12**	**ton/yr**
		Total PM Emissions:	**6.54**	**ton/yr**

Total PM Emissions (tons/yr) = 2.1 * Total PM-10 Emissions (tons/yr) based on US EPA's AP-42, 5th Edition, Section 11.19.2, Table 11.19.2-2, footnote c.

*** * unpaved roads * ***

The following calculations determine the amount of emissions created by vehicle traffic on unpaved roads, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 13.2.2.2.

I. Triaxle Dump Truck

17.5	trip/hr	x
0.04	mile/trip	x
2	(round trip)	x
8,760	hr/yr	= 12264 miles per year

PM

$$Ef = \frac{k * (s/12)^a * (W/3)^b}{(M/0.2)^C} * (S/15) * [(365-p)/365]$$

= 5.70 lb/mile

where k =	10	empirical constant for PM
s =	4.5	% silt content of unpaved roads
p =	122	days of rain greater than or equal to 0.01 inches
S =	10	miles/hr vehicle speed
W =	23.8	tons average vehicle weight
M =	0.2	% moisture of surface material
a =	0.8	constant for PM
b =	0.5	constant for PM
c =	0.4	constant for PM

$$\frac{5.70 \text{ lb/mi} \times 12264 \text{ mi/yr}}{2000 \text{ lb/ton}} = 34.94 \text{ tons/yr}$$

PM-10

$$Ef = \frac{k * (s/12)^a * (W/3)^b}{(M/0.2)^C} * (S/15) * [(365-p)/365]$$

= 1.20 lb/mile

where k =	2.6	empirical constant for PM-10
s =	4.5	% silt content of unpaved roads
p =	122	days of rain greater than or equal to 0.01 inches
S =	10	miles/hr vehicle speed
W =	23.8	tons average vehicle weight
M =	0.2	% moisture of surface material
a =	0.8	constant for PM-10
b =	0.4	constant for PM-10
c =	0.3	constant for PM-10

$$\frac{1.20 \text{ lb/mi} \times 12264 \text{ mi/yr}}{2000 \text{ lb/ton}} = 7.39 \text{ tons/yr}$$

II. Front End Loader

27	trip/hr	x
0.068	mile/trip	x
2	(round trip)	x
8,760	hr/yr	= 32166.72 miles per year

PM

$$Ef = \frac{k * (s/12)^a * (W/3)^b}{(M/0.2)^C} * (S/15) * [(365-p)/365]$$

= 5.80 lb/mile

where k =	10	empirical constant for PM
s =	4.8	% silt content of unpaved roads
p =	122	days of rain greater than or equal to 0.01 inches
S =	8	miles/hr vehicle speed
W =	34.7	tons average vehicle weight
M =	0.2	% moisture of surface material
a =	0.8	constant for PM
b =	0.5	constant for PM
c =	0.4	constant for PM

$$\frac{5.80 \text{ lb/mi} \times 32166.72 \text{ mi/yr}}{2000 \text{ lb/ton}} = 93.25 \text{ tons/yr}$$

PM-10

$$Ef = k * (s/12)^a * (W/3)^b * (S/15) * [(365-p)/365]$$

		(M/0.2)^C	
=	1.18	lb/mile	
where k =	2.6	empirical constant for PM-10	
s =	4.8	% silt content of unpaved roads	
p =	122	days of rain greater than or equal to 0.01 inches	
S =	8	miles/hr vehicle speed	
W =	34.7	tons average vehicle weight	
M =	0.2	% moisture of surface material	
a =	0.8	constant for PM-10	
b =	0.4	constant for PM-10	
c =	0.3	constant for PM-10	

1.18 lb/mi x 32166.72 mi/yr = 18.98 tons/yr
2000 lb/ton

Total PM Emissions From Unpaved Roads = 128.19 tons/yr

Total PM-10 Emissions From Unpaved Roads = 26.37 tons/yr

Assume a control efficiency of about 80% for the dust control methods described in the fugitive dust plan.

*** * storage * ***

The following calculations determine the amount of emissions created by wind erosion of storage stockpiles, based on 8,760 hours of use and USEPA's AP-42 (Pre 1983 Edition), Section 11.2.3.

Material	Silt Content (wt %)	Pile Size (acres)	Storage Capacity (tons)	P M Emissions tons/yr	P M-10 Emissions tons/yr
RAP - 1	1.0	0.500	10000	0.04	0.014
RAP - 2	1.0	0.250	10000	0.04	0.014
Shingles	0.1	0.250	3000	0.00	0.000
Total				**0.08**	**0.03**

P M-10 equals 35% of PM emissions

Sample Calculation:

Ef = 1.7*(s/1.5)*(365-p)/235*(f/15)
= 1.27 lb/acre/day
where s = 1.1 % silt
p = 125 days of rain greater than or equal to 0.01 inches
f = 15 % of wind greater than or equal to 12 mph

Ep (storage) = Ef * sc * (20 cuft/ton) * (365 day/yr) / (2,000 lb/ton)*(43,560 sqft/acre)*(25 ft)
where sc = tons storage capacity

*** *cold mix VOC storage emissions * ***

The following calculations determine the amount of VOC emissions created by cold mix storage based on 8,760 hours of use and USEPA's AP-42, 5th Edition, Section 4.5.

VOC Emission Factor =	5.19	weight percent flash-off of cold mix
Potential Throughput (tons/yr) =	3,066,000	tons/yr stockpile mix
Limited Throughput (tons/yr) =	1,664	tons/yr stockpile mix
Diluent usage limited to:	90.90	tons/yr

Potential VOC Emissions (tons/yr) = Potential Throughput (tons/yr) * wt percent flash-off

Potential VOC Emissions =	**159,125.40**	**tons/yr**
Limited VOC Emissions =	**86.35**	**tons/yr**

Weight percent flash-off is based on 7.0 percent by weight of diluent in stockpile mix, and assuming 95 % of the diluent evaporates.

Throughput must be limited to	1,664	tons per year to keep VOC emissions below 100 tons per year.
Diluent usage must be limited to	90.90	tons per year to keep VOC emissions below 100 tons per year.

*** * summary of source emissions before controls * ***

Criteria Pollutants:

P M:	**29,271.34**	**ton/yr**	
P M-10:	**6,779.68**	**ton/yr**	
S O 2:	**373.62**	**ton/yr**	
N O x:	**181.83**	**ton/yr**	
V O C:	**159141.59**	**ton/yr**	includes HAPs
C O:	**54.95**	**ton/yr**	
Acrolein:	**3.99E-02**	**ton/yr**	
Antimony:	**2.50E-02**	**ton/yr**	
Arsenic:	**6.29E-03**	**ton/yr**	
Benzene:	**1.84E+00**	**ton/yr**	
Beryllium:	**1.33E-04**	**ton/yr**	
Cadmium:	**2.57E-03**	**ton/yr**	
Chromium:	**2.24E-02**	**ton/yr**	
Chromium VI:	**1.18E-03**	**ton/yr**	
Cobalt:	**2.87E-02**	**ton/yr**	
Ethylbenzene:	**5.83E-01**	**ton/yr**	
Formaldehyde:	**5.57E+00**	**ton/yr**	
Hexane:	**1.18E+00**	**ton/yr**	
Lead:	**1.23E-02**	**ton/yr**	
Manganese:	**3.12E-02**	**ton/yr**	
Mercury:	**5.50E-04**	**ton/yr**	
Methyl chloroform:	**7.36E-02**	**ton/yr**	
Methyl ethyl ketone:	**3.07E-02**	**ton/yr**	
Naphthalene	**4.81E-01**	**ton/yr**	
Nickel:	**4.26E-01**	**ton/yr**	
Propionaldehyde:	**1.99E-01**	**ton/yr**	
Quinone:	**2.45E-01**	**ton/yr**	
Selenium:	**3.26E-03**	**ton/yr**	
1,1,1-Trichloroethane	**1.12E-03**	**ton/yr**	
Tolulene:	**1.18E+00**	**ton/yr**	
Xylene:	**6.14E-01**	**ton/yr**	
Total HAPs:	**1.26E+01**	**ton/yr**	All HAPs are considered VOC

*** * fuel usage limitations * ***

In order to qualify for the FESOP program, this facility must limit PM, PM-10, SO2 and NOx emissions to 99 tons per year. Consequently, SO2 emissions from the aggregate dryer burner must be limited to 94.77 tons per year (100 ton/yr - 5.23 ton/yr from the hot oil heater).

NOx emissions from the aggregate dryer burner must be limited to 97.53 t 98.53 tons per year (10.0 ton/yr - 1.47 ton/yr from hot oil heater).

The following calculations determine the amount of emissions created by distillate fuel oil 0.50 % sulfur with a fuel usage limitation of 2414606.74 gal/yr, and the amount of emissions created by natural gas with a fuel usage limitation of 703.77 MMcf/yr.

Natural Gas:	703.77	MMcf/yr 2,000 lb/ton	* Ef (lb/MMcf) =	(ton/yr)
P M:	7.60	lb/MMcf =	**2.67**	**ton/yr**
P M-10:	7.60	lb/MMcf =	**2.67**	**ton/yr**
S O 2:	0.6	lb/MMcf =	**0.21**	**ton/yr**
N O x:	280.0	lb/MMcf =	**98.53**	**ton/yr**
V O C:	5.5	lb/MMcf =	**1.94**	**ton/yr**
C O:	84.0	lb/MMcf =	**29.56**	**ton/yr**
Arsenic:	2.0E-04	lb/MMcf =	**7.04E-05**	**ton/yr**
Benzene:	2.1E-03	lb/MMcf =	**7.39E-04**	**ton/yr**
Beryllium:	1.2E-05	lb/MMcf =	**4.22E-06**	**ton/yr**
Cadmium:	1.1E-03	lb/MMcf =	**3.87E-04**	**ton/yr**
Chromium:	1.4E-03	lb/MMcf =	**4.93E-04**	**ton/yr**
Cobalt:	8.4E-05	lb/MMcf =	**2.96E-05**	**ton/yr**
Formaldehyde:	7.5E-02	lb/MMcf =	**2.64E-02**	**ton/yr**
Hexane:	1.8E+00	lb/MMcf =	**6.33E-01**	**ton/yr**
Lead:	5.0E-04	lb/MMcf =	**1.76E-04**	**ton/yr**
Manganese:	3.8E-04	lb/MMcf =	**1.34E-04**	**ton/yr**
Mercury:	2.6E-04	lb/MMcf =	**9.15E-05**	**ton/yr**
Naphthalene	6.1E-04	lb/MMcf =	**2.15E-04**	**ton/yr**
Nickel:	2.1E-03	lb/MMcf =	**7.39E-04**	**ton/yr**
Selenium:	2.4E-05	lb/MMcf =	**8.45E-06**	**ton/yr**
Tolulene:	3.4E-03	lb/MMcf =	**1.20E-03**	**ton/yr**
Total HAPs:	1.9E+00	lb/MMcf =	**0.66**	**ton/yr**

No. 2 Distillate Oil:	2,414,607	gal/yr 2,000 lb/ton	* Ef (lb/1,000 gal) =	(ton/yr)
P M:	2.0	lb/1000 gal =	**2.4**	**ton/yr**
P M-10:	1.0	lb/1000 gal =	**1.2**	**ton/yr**
S O 2:	78.5	lb/1000 gal =	**94.77**	**ton/yr**
N O x:	24.0	lb/1000 gal =	**28.98**	**ton/yr**
V O C:	0.56	lb/1000 gal =	**0.67**	**ton/yr**
C O:	5.0	lb/1000 gal =	**6.04**	**ton/yr**
Antimony:	5.25E-03	lb/1000 gal =	**6.34E-03**	**ton/yr**
Arsenic:	1.32E-03	lb/1000 gal =	**1.59E-03**	**ton/yr**
Benzene:	2.14E-04	lb/1000 gal =	**2.58E-04**	**ton/yr**
Beryllium:	2.78E-05	lb/1000 gal =	**3.36E-05**	**ton/yr**
Cadmium:	3.98E-04	lb/1000 gal =	**4.81E-04**	**ton/yr**
Chromium:	8.45E-04	lb/1000 gal =	**1.02E-03**	**ton/yr**
Chromium VI:	2.48E-04	lb/1000 gal =	**2.99E-04**	**ton/yr**
Cobalt:	6.02E-03	lb/1000 gal =	**7.27E-03**	**ton/yr**
Ethylbenzene:	6.36E-05	lb/1000 gal =	**7.68E-05**	**ton/yr**
Lead:	1.51E-03	lb/1000 gal =	**1.82E-03**	**ton/yr**
Manganese:	3.00E-03	lb/1000 gal =	**3.62E-03**	**ton/yr**
Mercury:	1.13E-04	lb/1000 gal =	**1.36E-04**	**ton/yr**
Napthalene:	1.13E-03	lb/1000 gal =	**1.36E-03**	**ton/yr**
Nickel:	8.45E-02	lb/1000 gal =	**1.02E-01**	**ton/yr**
Selenium:	6.83E-04	lb/1000 gal =	**8.25E-04**	**ton/yr**
1,1,1-Trichloroethane	2.36E-04	lb/1000 gal =	**2.85E-04**	**ton/yr**
Toluene	6.20E-03	lb/1000 gal =	**7.49E-03**	**ton/yr**
o-Xylene	1.09E-04	lb/1000 gal =	**1.32E-04**	**ton/yr**
Total HAPs:	1.1E-01	lb/MMcf =	**0.14**	**ton/yr**

Worst Case:						Worst Case Fuel
P M:	7.6	lb/MMcf	=	**2.67**	**ton/yr**	Natural Gas
P M-10:	7.6	lb/MMcf	=	**2.67**	**ton/yr**	Natural Gas
S O 2:	78.5	lb/1000 gal	=	**94.77**	**ton/yr**	Natural Gas
N O x:	280	lb/MMcf	=	**98.53**	**ton/yr**	No. 2 Fuel Oil
V O C:	5.5	lb/MMcf	=	**1.94**	**ton/yr**	Natural Gas
C O:	84	lb/MMcf	=	**29.56**	**ton/yr**	Natural Gas
Antimony:	5.25E-03	lb/MMcf	=	**6.34E-03**	**ton/yr**	No. 2 Fuel Oil
Arsenic:	1.32E-03	lb/MMcf	=	**1.59E-03**	**ton/yr**	No. 2 Fuel Oil
Benzene:	2.1E-03	lb/MMcf	=	**7.39E-04**	**ton/yr**	Natural Gas
Beryllium:	2.78E-05	lb/MMcf	=	**3.36E-05**	**ton/yr**	No. 2 Fuel Oil
Cadmium:	3.98E-04	lb/MMcf	=	**4.81E-04**	**ton/yr**	No. 2 Fuel Oil
Chromium:	8.45E-04	lb/MMcf	=	**1.02E-03**	**ton/yr**	No. 2 Fuel Oil
Chromium VI:	2.48E-04	lb/MMcf	=	**2.99E-04**	**ton/yr**	No. 2 Fuel Oil
Cobalt:	6.02E-03	lb/MMcf	=	**7.27E-03**	**ton/yr**	No. 2 Fuel Oil
Ethylbenzene:	6.36E-05	lb/MMcf	=	**7.68E-05**	**ton/yr**	No. 2 Fuel Oil
Formaldehyde:	7.5E-02	lb/MMcf	=	**2.64E-02**	**ton/yr**	Natural Gas
Hexane:	1.8E+00	lb/MMcf	=	**6.33E-01**	**ton/yr**	Natural Gas
Lead:	1.51E-03	lb/MMcf	=	**1.82E-03**	**ton/yr**	No. 2 Fuel Oil
Manganese:	3.00E-03	lb/MMcf	=	**3.62E-03**	**ton/yr**	No. 2 Fuel Oil
Mercury:	1.13E-04	lb/MMcf	=	**1.36E-04**	**ton/yr**	No. 2 Fuel Oil
Naphthalene	1.13E-03	lb/MMcf	=	**1.36E-03**	**ton/yr**	No. 2 Fuel Oil
Nickel:	8.45E-02	lb/MMcf	=	**1.02E-01**	**ton/yr**	No. 2 Fuel Oil
Selenium:	6.83E-04	lb/MMcf	=	**8.25E-04**	**ton/yr**	No. 2 Fuel Oil
1,1,1-Trichloroethane	2.36E-04	lb/MMcf	=	**2.85E-04**	**ton/yr**	No. 2 Fuel Oil
Tolulene:	6.20E-03	lb/MMcf	=	**7.49E-03**	**ton/yr**	No. 2 Fuel Oil
o-Xylene	1.09E-04	lb/MMcf	=	**1.32E-04**	**ton/yr**	No. 2 Fuel Oil
Total HAPs:	1.99E+00	lb/MMcf	=	**0.80**	**ton/yr**	

Fuel Usage Limitations

Fuel : Natural Gas

98.53 tons NOx/year limited / 180.35 tons NOx/year potential * 1288.24 MMcf / year potential = 703.77 MMcf / year limited

Fuel : No. 2 Fuel Oil

98.53 tons NOx/year limited / 112.63 tons NOx/year potential * 9385.71 Kgals / year potential = 8210.64 Kgals / year limited

Fuel : No. 2 Fuel Oil

94.77 tons SO2/year limited / 368.39 tons SO2/year potential * 9385.71 Kgals / year potential = 2414.61 Kgals / year limited

Fuel : Natural Gas

94.77 tons SO2/year limited / 0.39 tons SO2/year potential * 1288.24 MMcf / year potential = 315911.05 MMcf / year limited

Fuel equivalence limit for No. 2 distillate oil based on NOx emissions from natural gas

112.63 # 2 D.O. potential emissions (ton/yr) / 9385.71 # 2 D.O. potential usage (kgal/yr) / 180.35 N.G. potential emissions (ton/yr) / 1288.24 N.G. potential usage (MMcf/yr)

= 0.0857 MMcf N.G. burned / Kgal #2 F.O. burned

Fuel equivalence limit for natural gas based on SO2 emissions from No. 2 distillate oil

0.39 N.G. potential emissions (ton/yr) / 1288.24 N.G. potential usage (MMcf/yr) / 368.39 # 2 D.O. potential emissions (ton/yr) / 9385.71 # 2 D.O. potential usage (kgal/yr)

= 0.0076 Kgal #2 F.O. burned / MMcf N.G. burned

*** * source emissions after controls * ***

	hot oil heater		nonfugitive				
P M:	0.15	ton/yr x	100.0%	emitted after controls =		**0.15**	**ton/yr**
P M-10:	0.08	ton/yr x	100.0%	emitted after controls =		**0.08**	**ton/yr**
S O 2:	5.23	ton/yr x	100.0%	emitted after controls =		**5.23**	**ton/yr**
N O x:	1.47	ton/yr x	100.0%	emitted after controls =		**1.47**	**ton/yr**
V O C:	0.06	ton/yr x	100.0%	emitted after controls =		**0.06**	**ton/yr**
C O:	0.85	ton/yr x	100.0%	emitted after controls =		**0.85**	**ton/yr**
HAPs:	0.03	ton/yr x	100.0%	emitted after controls =		**0.03**	**ton/yr**
	aggregate dryer burner		nonfugitive				
P M:	2.67	ton/yr x	0.1%	emitted after controls =		**0.00**	**ton/yr**
P M-10:	2.67	ton/yr x	0.1%	emitted after controls =		**0.00**	**ton/yr**
S O 2:	94.77	ton/yr x	100.0%	emitted after controls =		**94.77**	**ton/yr**
N O x:	98.53	ton/yr x	100.0%	emitted after controls =		**98.53**	**ton/yr**
V O C:	1.94	ton/yr x	100.0%	emitted after controls =		**1.94**	**ton/yr**
C O:	29.56	ton/yr x	100.0%	emitted after controls =		**29.56**	**ton/yr**
HAPs:	0.80	ton/yr x	100.0%	emitted after controls =		**0.80**	**ton/yr**
	aggregate drying:		nonfugitive				
P M:	29,127	ton/yr x	0.1%	emitted after controls =		**29.13**	**ton/yr**
P M-10:	6,745	ton/yr x	0.1%	emitted after controls =		**6.75**	**ton/yr**
HAPs:	10.83	ton/yr x	100.0%	emitted after controls =		**10.83**	**ton/yr**
	truck loading:		fugitive				
P M:	0.32	ton/yr x	100%	emitted after controls =		**0.32**	**ton/yr**
P M-10:	0.15	ton/yr x	100%	emitted after controls =		**0.15**	**ton/yr**
	conveying:		fugitive				
P M:	0.62	ton/yr x	100%	emitted after controls =		**0.62**	**ton/yr**
P M-10:	0.29	ton/yr x	100%	emitted after controls =		**0.29**	**ton/yr**
	screening:		fugitive				
P M:	2.70	ton/yr x	100.0%	emitted after controls =		**2.70**	**ton/yr**
P M-10:	1.29	ton/yr x	100.0%	emitted after controls =		**1.29**	**ton/yr**
	batch drops:		fugitive				
P M:	2.90	ton/yr x	100.0%	emitted after controls =		**2.90**	**ton/yr**
P M-10:	1.38	ton/yr x	100.0%	emitted after controls =		**1.38**	**ton/yr**
	unpaved roads:		fugitive				
P M:	128.19	ton/yr x	20%	emitted after controls =		**25.64**	**ton/yr**
P M-10:	26.37	ton/yr x	20%	emitted after controls =		**5.27**	**ton/yr**
	storage piles:		fugitive				
P M:	0.08	ton/yr x	100%	emitted after controls =		**0.08**	**ton/yr**
P M-10:	0.03	ton/yr x	100%	emitted after controls =		**0.03**	**ton/yr**
	cold mix VOC storage:						
VOC:	86.35	ton/yr x	100%	emitted after controls =		**86.35**	**ton/yr**

*** * summary of source emissions after controls * ***

Criteria Pollutant:	Total		
PM:	61.53	ton/yr	
PM-10:	15.24	ton/yr	
S O 2:	100.00	ton/yr	
N O x:	100.00	ton/yr	
V O C:	100.00	ton/yr	includes HAPs
C O:	30.41	ton/yr	
Acrolein:	3.99E-02	ton/yr	
Antimony:	6.72E-03	ton/yr	
Arsenic:	3.38E-03	ton/yr	
Benzene:	1.84E+00	ton/yr	
Beryllium:	3.56E-05	ton/yr	
Cadmium:	1.18E-03	ton/yr	
Chromium:	1.95E-02	ton/yr	
Chromium VI:	3.18E-04	ton/yr	
Cobalt:	7.71E-03	ton/yr	
Ethylbenzene:	5.83E-01	ton/yr	
Formaldehyde:	5.55E+00	ton/yr	
Hexane:	6.52E-01	ton/yr	
Lead:	6.99E-03	ton/yr	
Manganese:	2.07E-02	ton/yr	
Mercury:	1.56E-04	ton/yr	
Methyl chloroform:	7.36E-02	ton/yr	
Methyl ethyl ketone:	3.07E-02	ton/yr	
Naphthalene	4.77E-01	ton/yr	
Nickel:	1.31E-01	ton/yr	
Propionaldehyde:	1.99E-01	ton/yr	
Quinone:	2.45E-01	ton/yr	
Selenium:	8.75E-04	ton/yr	
1,1,1-Trichloroethane	3.02E-04	ton/yr	
Tolulene:	1.16E+00	ton/yr	
Xylene:	6.13E-01	ton/yr	
Total HAPs:	11.66	ton/yr	

*** * miscellaneous * ***

326 IAC 7 Compliance Calculations:

The following calculations determine the maximum sulfur content of distillate fuel oil allowable by 326 IAC 7:

0.5	lb/MMBtu	x	140,000	Btu/gal=	70	lb/1000gal
70	lb/1000gal	/	157	lb/1000 gal =	0.5	%

Sulfur content must be less than or equal to 0.5% to comply with 326 IAC 7.